

## SR 531 Corridor Recommendations

WSDOT and the city of Arlington partnered in this analysis and development of the recommended improvements. Both agencies will have a role in any future improvement of the highway.

- **City:** The city will take the lead in pursuing locally-funded improvements and securing contributions through developer mitigation.
- **State:** Washington's highway needs far exceed the funds available to address them, so the state prioritizes projects based on the legislature's policy goals of preservation, safety, mobility, environment and stewardship. In managing congestion, the aim is to first maintain, preserve and improve the operating efficiency of the existing highway system before adding capacity.

### What's next?

We currently do not have funding for additional improvements on SR 531 between 43rd Avenue NE and 67th Avenue NE. However, this plan will help decision-makers prioritize future projects as funding becomes available. It may be possible to fund some improvements in conjunction with new development along the corridor.

For example, the intersection and signal at 43rd Avenue was recently improved as part of the Whidbey Island Bank development. As planned retail development occurs in the future, the existing four-lane section of SR 531 will be extended east to the intersection at 43rd Avenue.

Recent and current WSDOT projects on SR 531:	
I-5 - Smokey Point: 172nd Street NE (SR 531) Interchange Modifications and SR 531 Safety Improvements	Complete June 2006
SR 531 Lakewood Schools Sidewalks	Complete August 2007
I-5 - 172nd Street NE (SR 531 Smokey Point) Interchange Improvements	Complete late 2010
Upcoming WSDOT projects:	
SR 9/SR 531-172nd St NE Intersection Improvements	construction begins summer 2011



### Learn more

**Visit the project Web site for more information:**  
[www.wsdot.wa.gov/projects/sr531/corridoranalysis](http://www.wsdot.wa.gov/projects/sr531/corridoranalysis)

**Stay informed with WSDOT e-mail updates:**  
[www.wsdot.wa.gov/emailupdates](http://www.wsdot.wa.gov/emailupdates)

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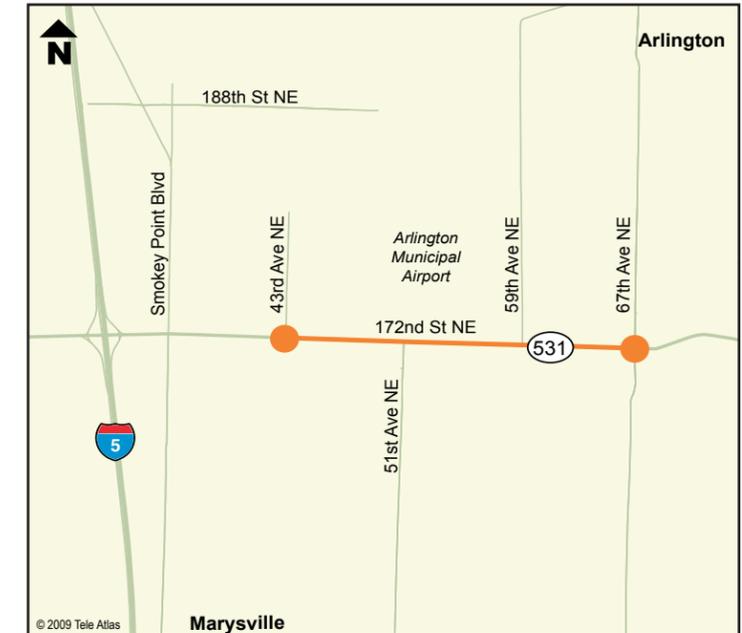
## SR 531 Corridor Recommendations

December 2009

### Developing a plan to improve safety and relieve congestion

State Route 531, also known as 172nd Street NE, is an important corridor connecting developing urban areas in Snohomish County. SR 531 is a key link between I-5 and SR 9 and serves the growing communities surrounding Arlington and Marysville, as well as the Arlington Airport.

Together with the city of Arlington, we have identified current and future safety and mobility needs on SR 531 between 43rd Avenue NE and 67th Avenue NE. The purpose of this analysis was to update previous work by WSDOT and city of Arlington and provide a reliable preliminary cost estimate and footprint that accounts for likely risks to budget and project delivery. Although there is no funding currently available to implement recommended improvements, the corridor pre-design is a necessary first step toward making future improvements in the corridor and will guide decision-makers as they seek funding for projects.



#### Growth contributes to congestion, delays

This area is planned as a regionally-significant commercial and industrial center. New residential growth is occurring to the east and north of SR 531. Growth forecasts indicate that by the year 2025:

- Arlington's urban growth area will see a 90 percent increase in employment
- Arlington's population will increase by 75 percent
- Marysville's urban growth area will see a 71 percent increase in employment
- Marysville's population will increase by 64 percent

Traffic on the SR 531 corridor is affected by this growth, especially during peak commute hours. In the future, motorists, freight carriers and businesses that rely on SR 531 will experience significantly longer travel times, delays and increased congestion at intersections and at access points for businesses, schools and the airport. Forecasted peak hour traffic conditions for SR 531 from 43rd to 67th indicate that a vehicle trip that takes three to four minutes today will take eight minutes by 2015 and 14 minutes by 2035 if travel patterns continue and the SR 531 corridor is not improved.

#### Rising congestion leads to more frequent collisions

From 2003 to 2007, there were 186 collisions on this stretch of SR 531. 87 percent of those collisions occurred at intersections and access points. Congestion was a contributing factor in many of the collisions. Not only has the frequency of collisions increased over the past five years, but collisions occurred more frequently during afternoon peak traffic hours than during other hours of the day.

**What is a corridor pre-design analysis?**



The corridor pre-design analysis recommends future improvements that will be refined as traffic conditions change and funding for more detailed engineering becomes available.

Corridor pre-design analysis combines engineering and public input to assess existing and future safety and mobility needs and examine improvement options. It results in recommendations for future improvements and suggests an implementation strategy, but does not guarantee funding.

WSDOT and the city of Arlington began the corridor pre-design analysis of SR 531 between 43rd Avenue NE and 67th Avenue NE in fall 2008. Arlington's comprehensive plan calls for development of a preliminary design for SR 531 to position the city to implement improvements through partnerships with developers.

We studied the collision history of SR 531 and reviewed current and forecasted traffic volumes. We spoke with stakeholders along the highway to share information and gather feedback about the highway. Through this process we identified current and future safety and mobility problems on SR 531, and developed a list of recommendations for the corridor. Our pre-design analysis included preliminary engineering to develop initial estimates for construction costs and right-of-way needs.

Working with corridor stakeholders, we will review and revise the recommendations in the future as traffic conditions change and funding for more detailed engineering becomes available.

**Recommended future improvements**

**Build two-lane roundabouts at SR 531 intersections at 43rd Avenue NE, 51st Avenue NE, and 59th Avenue NE**  
 – Improves safety and traffic flow

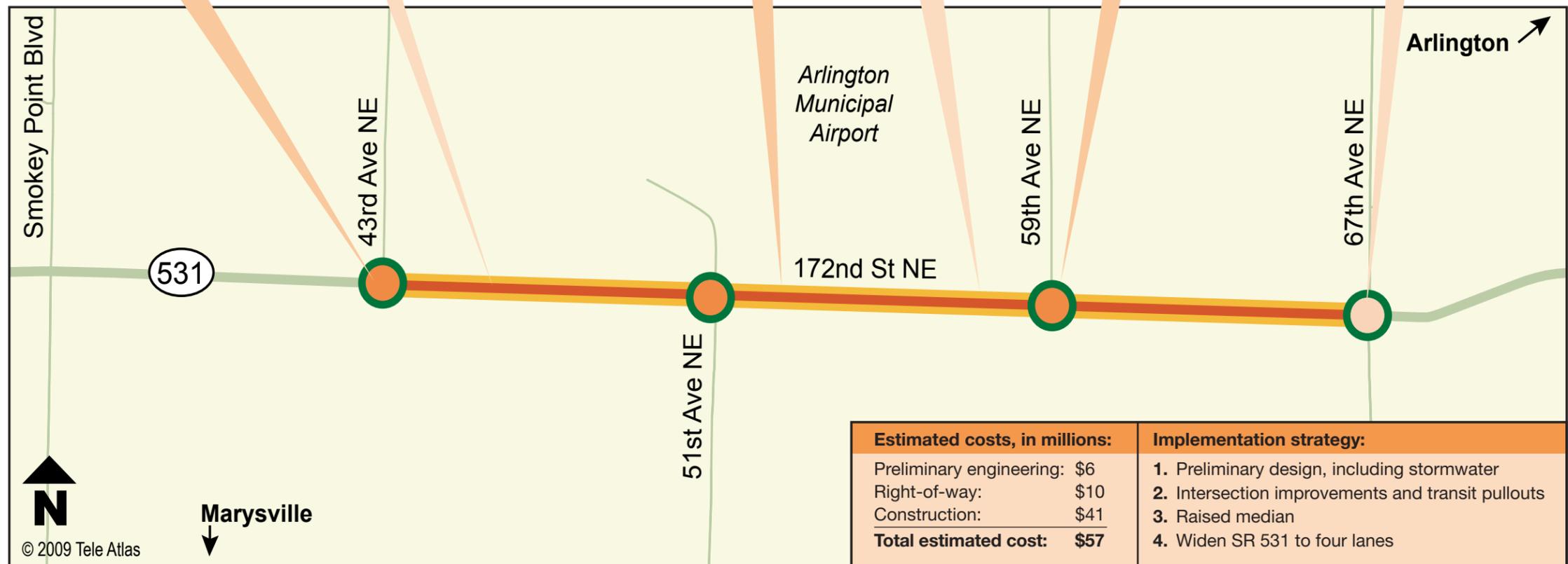
**Add a raised median to separate oncoming traffic and manage turning movements.**  
 – Reduces the risk of serious collisions involving drivers turning onto and off of SR 531

**Widen SR 531 to four lanes between 43rd Avenue NE and 67th Avenue NE**  
 – Adds additional capacity to improve traffic flow, reduce congestion and provide safer access onto and off of SR 531

**Install sidewalks and bicycle lanes along both sides of SR 531 between 43rd Avenue NE and 67th Avenue NE**  
 – Improves safety for bicyclists and pedestrians

**Reserve space for transit pullouts at the intersections of 43rd Avenue NE, 51st Avenue NE, 59th Avenue NE and 67th Avenue NE.**  
 – Improves pedestrian safety and enhances transit service as a commute option

**Build a two-lane roundabout or improved signal and channelization at SR 531/67th Avenue intersection**  
 – Improves safety and traffic flow



**Benefits of Roundabouts – When compared to traditional intersections, national statistics have shown that roundabouts typically achieve:**

- 37 percent reduction in overall collisions
- 75 percent reduction in injury collisions
- 90 percent reduction in fatality collisions
- 40 percent reduction in pedestrian collisions
- 89 percent average reduction in vehicle delays
- 56 percent average reduction in vehicle stops
- Reduced fuel consumption
- Reduced vehicle emissions at intersections

**Trucks and roundabouts**

Modern roundabouts are designed to accommodate large commercial trucks with long wheelbases and equipment. A combination of features including roundabout diameter, lane and shoulder width, drivable shoulder aprons, striping and signage are all design elements tailored to provide a safe and efficient intersection for trucks, and for the other vehicles, pedestrians and bicyclists they share the roadway with.

**Pedestrians, cyclists and roundabouts**

Roundabouts provide a safer route through an intersection for pedestrians. Driver speeds are lower and pedestrians need only cross one direction of traffic at a time. A bicyclist can travel through the roundabout as a pedestrian or ride in the circular roadway with vehicles.

**Roundabouts reduce congestion and the risk of serious collisions. For more information go to [www.wsdot.wa.gov/projects/roundabouts](http://www.wsdot.wa.gov/projects/roundabouts).**



WSDOT worked with freight interests to design roundabouts for SR 539, a busy freight route in Whatcom County.